

Patent Abstracts of Japan

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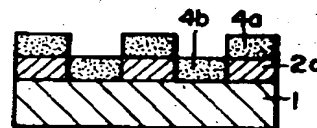
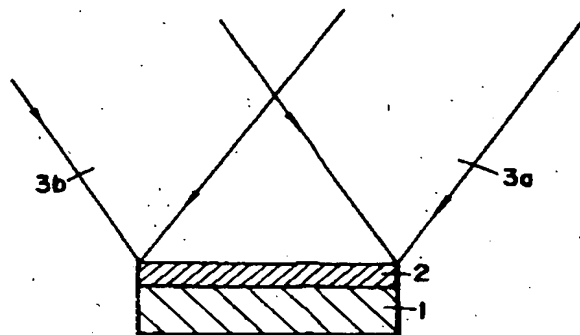
APPLICATION DATE : 01-04-82
APPLICATION NUMBER : 57054710

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INT.CL. : G03H 1/04

TITLE : HOLOGRAM GENERATING METHOD



ABSTRACT : **PURPOSE:** To obtain a generating method for a hologram which has superior weather resistance and relatively high diffraction efficiency, by exposing a photoresist layer formed on a glass substrate for printing a hologram pattern, and developing and leaving the photoresist layer in a shape corresponding to the hologram pattern, and then removing it.

CONSTITUTION: The glass substrate 1 having the photoresist layer 2 on one side is irradiated with two pieces 3a and 3b of luminous flux of laser light. For example, the laser light 3a is a spherical wave as a signal wave and the laser light 3b is a plane wave; and then a diffraction grating pattern is exposed to the photoresist layer 2. This pattern is developed to leave the part 2a of the resist layer 2 corresponding to the diffraction grating pattern. Then, the residual resist layer 2a is used as a mask to vapor-deposit low-fusion-point glass of SiO, SiO₂, etc., thereupon, forming low-fusion-point glass layers 4a and 4b. Then, after the residual photoresist layer 2a and part 4a of the low-fusion-point glass layer on the layer 2a are both removed by a lift-off method, the glass layer at a part 4b corresponding to the opening part of the photoresist layer is left and the hologram is completed.

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